



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,457	06/23/2003	Thomas N. Chalin	WCMI-0037	9392
20558	7590	03/16/2005	EXAMINER	
KONNEKER & SMITH P. C. 660 NORTH CENTRAL EXPRESSWAY SUITE 230 PLANO, TX 75074				ROSENBERG, LAURA B
		ART UNIT		PAPER NUMBER
		3616		

DATE MAILED: 03/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

V
Office Action Summary

<i>V</i>	Application No.	Applicant(s)
	10/602,457	CHALIN ET AL.
Examiner	Art Unit	
Laura B Rosenberg	3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-19 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 12 July 2004 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6-23-03.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

Drawings

1. The drawings were received on 12 July 2004. These drawings are acceptable.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 13, and 16-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Bowman, Jr. (4,203,617). Bowman, Jr. discloses:

- Suspension system (including #10)
- Axle assembly (#10)
- Axle beam (including #12, 14) made of composite material (column 2, lines 39-44)
- King pin receiver (including #22, 24, 26, 28, 52, 54, 56, 58) made of composite material (same as axle beam)
- Axle beam has a portion of an attachment (including #38, 48, 49) for a pivoting arm (radius arm, pivotal connection to frame), attachment made of composite material (same as axle beam)
- Axle beam, king pin receiver, and pivoting arm attachment are integrally formed as a single piece (best seen in figures 1, 2)

Art Unit: 3616

4. Claims 1, 13, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Stroh et al. (5,741,027). Stroh et al. disclose:

- Suspension system (best seen in figure 1)
- Axle assembly (including #12, 22)
- Axle beam (#12) made of composite material (column 6, lines 38-42)
- King pin receiver (#22)
- Axle beam has at least a portion of an attachment (including #42) that can be used for a pivoting arm (such as a spring)
- Pivoting arm attachment includes a reinforcement (#70) spanning an interior of axle beam (best seen in figure 7)

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over De Freitas, Jr. et al. (2004/0145144A1) in view of Stroh et al. (5,741,027).

De Freitas, Jr. et al. disclose:

- Suspension system (best seen in figures 1-4)
- Axle assembly (#10)
- Axle beam (#12)

- King pin receiver (#34) is a portion of a device (#16) formed separately from the axle beam (best seen in figures 1-4)
- Axle beam has at least a portion of an attachment (including #36) that can be used for a pivoting arm (such as a V-rod)
- Pivoting arm attachment includes a reinforcement (web that connects flanges of the axle beam) spanning an interior of axle beam (best seen in figure 5)
- Device (#16) made of metal (paragraph 0015)
- Device includes axle seat (including #23, 24, 28) complementarily shaped relative to axle beam (best seen in figure 2) and "bonded" to axle beam (best seen in figures 1, 3, 4)
- Device (#16) includes first and second attachments (#38, 40) that can be used for first and second pivoting arms (for example, a longitudinal link)
- Device constructed of attached metal plates (for example, metal forging or casting)
- Device material wrapped around the king pin receiver (best seen in figures 1-4)
- King pin receiver, axle seat, and pivoting arm attachment integrally formed in device (best seen in figures 1-4)
- Axle beam, king pin receiver, and pivoting arm attachment are integrally formed as a single piece (best seen in figures 1-4)

Though not specifically shown, based on the configuration of the reinforcement (web within axle beam) and the location of the pivoting arm attachment (#36) on the axle beam (#12), the fasteners (not labeled, but best seen in figure 3) would extend through the reinforcement.

De Freitas, Jr. et al. do not disclose the axle beam, device, king pin receiver, or pivoting arm attachment being made of composite material. Stroh et al. teach a suspension system comprising an axle assembly (including #12, 22) including an axle beam (#12) made of composite material. It would have been obvious to one skilled in the art at the time that the invention was made to modify the axle beam, device, king pin receiver, and pivoting arm attachment of De Freitas, Jr. et al. such that they comprised composite material as claimed in view of the teachings of Stroh et al. so as to allow the components to achieve specific desired properties resulting from a certain material choice (Stroh et al.: column 6, lines 38-42). In addition, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. Further, De Freitas, Jr. et al. disclose that the axle beam and device can be made from any material and process (paragraph 0015). Finally, the method of forming is not germane to the issue of patentability, and thus has not been given patentable weight.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Cornacchia et al. disclose a suspension system comprising an axle assembly including an axle beam having a pivoting arm attachment.

Pollock et al., Shealy, Paddison, Link, Dauber et al. each disclose a suspension system comprising an axle assembly including an axle beam and king pin receiver.

Keeler et al. and Beck et al. each disclose a suspension system comprising an axle assembly including an axle beam and king pin receiver, the axle beam having a pivoting arm attachment.

Haycraft discloses a suspension system comprising an axle assembly including an axle beam and king pin receiver, the axle beam made of either composite or metal material.

Smith, Schlosser et al., and Sakamoto et al. each disclose a suspension system comprising an axle assembly including an axle beam and king pin receiver, the king pin receiver being a portion of a device separate from the axle beam.

Tremouilles and Etzold each disclose a suspension system comprising an axle assembly including an axle beam with a reinforcement spanning an interior of the axle beam.

Lawson et al. disclose a suspension system comprising an axle assembly including an axle beam having a pivoting arm attachment and made of composite material.

Varela discloses a suspension system comprising an axle assembly including an axle beam and a device separate from the axle beam.

Duran discloses a suspension component made of both metallic and nonmetallic, specifically composite, parts.

Nussbaumer discloses a suspension system comprising an axle assembly including an axle beam made of a composite material.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura B Rosenberg whose telephone number is (703) 305-3135. The examiner can normally be reached on Monday-Friday 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (703) 308-2089. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Beginning April 7, 2005, Laura B Rosenberg can be reached at the new USPTO location at (571) 272-6674, and Paul Dickson can be reached at (571) 272-6669.


Laura B Rosenberg
Patent Examiner
Art Unit 3616

LBR

 3/10/05
PAUL N. DICKSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600